

Listing of Claims:

1. (Currently Amended) A semiconductor laser device comprising:

an optically pumped surface-emitting vertical emitter region which has an active radiation-emitting vertical emitter layer;

at least one monolithically integrated pump radiation source for optically pumping the vertical emitter, which has an active radiation-emitting pump layer, wherein the pump layer follows the vertical emitter layer in the vertical direction and a main direction of pump radiation from the monolithically integrated pump radiation source is lateral ~~emitted mainly laterally~~[[;]]

a conductive layer provided between the vertical emitter layer and the pump layer; and

a contact applied on the side of the semiconductor laser device which is closer to the pump layer than to the conductive layer;

whereby an electrical field can be applied between the conductive layer and the contact for generating pump radiation by charge carrier injection.

2. (Previously Presented) The semiconductor laser device as claimed in claim 1, wherein the semiconductor laser device is partially ablated so that the conductive layer is partially exposed.

3. (Previously Presented) The semiconductor laser device as claimed in claim 2, wherein the semiconductor laser device is ablated in the form of parallel trenches.

4. (Previously Presented) The semiconductor laser device as claimed in claim 2, wherein a further contact is applied to the exposed areas of the conductive layer.

5. (Previously Presented) The semiconductor laser device as claimed in claim 4, wherein a layer which is conductive and which is transparent for radiation of a wavelength as generated by the pump radiation source provided between a conductive layer and the further contact.

6. (Previously Presented) The semiconductor laser device as claimed in claim 2, wherein an etch stop layer which is resistant to an etching process which is suitable for exposing the conductive layer is provided adjacently to the conductive layer.

7. (Previously Presented) The semiconductor laser device as claimed in claim 1, wherein the conductive layer is arranged vertically in such a manner that it is located in a node of the radiation field in the resonator of the vertical emitter region.

8. (Previously Presented) The semiconductor laser device as claimed in claim 1, wherein a vertical waveguide structure is provided between the vertical emitter layer and the conductive layer.

9. (Previously Presented) The semiconductor laser device as claimed in claim 8, wherein the vertical waveguide structure has a different index of refraction in the region in which it is located between the contact and the further contact, seen laterally, than in the region in which it is not located between the contact and the further contact.

10. (Previously Presented) The semiconductor laser device as claimed in claim 9, wherein the vertical waveguide structure is oxidized in the region in which it is located between the contact and the further contact, seen laterally.

11. (Previously Presented) The semiconductor laser device as claimed in claim 1, wherein the pump layer and the vertical emitter layer are followed in the vertical direction by an internal cavity reflective structure.

12. (Previously Presented) The semiconductor laser device as claimed in claim 11, wherein the internal cavity reflective structure is a Bragg reflector structure.

13. (Previously Presented) The semiconductor laser device as claimed in claim 11, wherein the internal cavity reflective structure is arranged between the vertical emitter layer and a substrate and the radiation generated by the vertical emitter layer is launched on the side opposite the substrate.

14. (Previously Presented) The semiconductor laser device as claimed in claim 1, wherein the vertical emitter layer is associated with an external resonator reflector which, together with the internal cavity reflective structure, forms the resonator for the vertical emitter region.

15. (Previously Presented) The semiconductor laser device as claimed in claim 14, wherein beam-shaping elements are arranged in the resonator.

16. (Previously Presented) The semiconductor laser device as claimed in claim 14, wherein frequency-selective elements are arranged in the resonator.

17. (Previously Presented) The semiconductor laser device as claimed in claim 14, wherein frequency-converting elements are arranged in the resonator.

18. (Previously Presented) The semiconductor laser device as claimed in claim 1, wherein at least one of the vertical emitter layer and the pump layer in each case have one or more quantum well structures.

19. (Previously Presented) The semiconductor laser device as claimed in claim 18, wherein the quantum well structures can contain at least one of quantum troughs, quantum wires and quantum dots.